PROGRESS

OF

MEDICAL SCIENCE.

THERAPEUTICS.

UNDER THE CHARGE OF
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Treatment of Opium-poisoning by Potassium Permanganate.—DR. WILLIAM OVID MOOR points out that atropine, cocaine, veratrine, pilocarpine, aconitine, caffeine, hyoscyamine, hyoscine, and phosphorus treated by the permanganate solution give rise to no reaction. Entirely otherwise is it with opium and its alkaloid morphine. After reporting his personal experience of antagonizing one-half grain of morphine by seven grains of the permanganate in eight ounces of water taken immediately after, he advises the use of this antidote, subcutaneously in from $\frac{1}{5}$ to 1 per cent. solution, in severe cases of ether- and chloroform-poisoning; asphyxia from illuminating-gas, drunkenness, laryngeal obstruction; and in uræmia, eclampsia, and similar cases, in addition to the ordinary methods. More than ninety instances of its successful use in opium-poisoning have been reported. These indications are offered: (1) Internally, seven or eight grains in diluted solution, to antidote the opium or morphine in the stomach. (2) To neutralize morphine which is returned to the stomach from the circulation, one grain in solution, frequently repeated. (3) As a physiological antidote, subcutaneous injection of 1 per cent. solutions.—*Therapeutische Wochenschrift*, 1897, No. 7, S. 147.

[The reports of its successful use, already of considerable number, lead to the conclusion that this should be considered as the antidote of choice.—R. W. W.]

Acetic Acid as a Menstruum and Solvent.—PROF. JOSEPH P. REMINGTON has undertaken a series of experiments to ascertain whether this drug cannot be made to replace alcohol in at least some of the preparations now in common use. The antiseptic power is frequently overlooked. Slightly acidulated liquids are palatable to most patients, and these, when combined in prescriptions with syrups, are particularly acceptable, inasmuch as the acid counteracts the cloying sweetness of the syrups. Further, it is desirable to have alternative preparations of the same drug to give to patients who are liable to become victims to the alcohol-habit. In an elaborate study it was found that acetic acid could advantageously replace alcohol in the extraction of a drug like nux vomica. A number of other drugs have been exhausted with varying strengths of acetic acid, such as sanguinaria, kola, ipecacuanha, squill, cinchona, and colchicum seed.—*American Journal of Pharmacy*, 1897, No. 3, p. 121.

Digitalis and Digitaline.—DR. HENRI HUCHARD states that the generally received opinion is that of all the preparations of digitalis that obtained by maceration possesses the most marked diuretic properties, while digitaline shows the least. This, however, is an error, and in every case the plant possesses properties very variable, according to the country in which it grows; this is shown by the great variations in dosage, and in this way may be explained the harmlessness of the very large doses used in Roumania in the treatment of pneumonia. Further than this, faulty methods of preservation and the substitution, in part, of leaves similar in appearance (*Coniza squamosa*) give rise to variations in strength. Thus some failures which have been attributed to too great degeneration of the myocardium should rather have been laid to faulty methods of collection and preservation. For these reasons the infusion, from a pharmaceutical standpoint, should be considered as an inferior preparation to crystallized digitaline, which is always the same. Further, it is denied that this glucoside is inferior in diuretic power to the infusion of the leaves. After a discussion concerning the various glucosides the conclusion is reached that there is only one crystallized digitaline, and that is the French, which has the chemical formula $C_{31}H_{50}O_{10}$. An important fact, which has not been taken into consideration by those investigating the infusion, is that the leaves contain large quantities of calcium and potassium chlorides. The latter is an energetic vaso-constrictor, and the elevation of arterial tension which it produces, even after section of the cord, appears to indicate that it has a local and direct influence upon the muscles in the vessel-walls, and in addition this salt belongs to that class of very diffusible agents which have a great power of filtration through animal membranes, which explains their diuretic action. The calcium chloride also acts upon the heart in that it increases its contractile energy, and, in very large doses, paralyzes it. The presence in the infusion of these very soluble salts, which have a real action upon the heart and cause diuresis, explains, in part at least, the close identity of action of the infusion with the crystalline digitaline, which is absolutely insoluble in water. Besides, we must not forget that the former contains digitaleine, which is soluble in water.—*Journal des Praticiens*, 1896, No. 48, p. 753.

Snake-bite Treated by Calmette's Antivenene Serum.—MR. S. J. RENNIE reports a successful case A boy of eleven years was bitten upon the inner side of the right foot by a krait (*Bungarus cœruleus*), that most deadly and dangerous Indian snake. The leg was promptly bound, and within a few minutes about two drachms of antivenene were injected into the subcutaneous cellular tissue of the boy's abdomen. At the same time the wounds and their